

the first heating source **130** when a printing medium **S** having a relatively small width is printed, similar to the fusing device **100** illustrated in FIGS. **5** and **6**. Accordingly, a part of the first heater **131** corresponding to the first section **S1** generates heat, and a remaining part of the first heater **131** corresponding to the fourth section **S4** does not generate heat.

[0153] Otherwise, when a printing medium **S** having a relatively large width is printed, power is supplied to both of the first heating source **130** and the second heating source **4140**. Accordingly, the first section **S1** is heated by the first heating source **130**, and the fourth section **S4** is heated by the second heating source **4140**. That is, the first heating source **130** and the second heating source **4140** cooperate to heat the entire printing medium **S** having a large width.

[0154] A control method of selectively supplying a current to the first heating source **4130** and the second heating source **4140** may use the same control method as a control method of selectively supplying a current to the first heating source **130** and the second heating source **140** of the fusing device **100** illustrated in FIGS. **5** to **7**.

[0155] The fusing device **4100** according to the embodiments illustrated in FIGS. **12** and **13** selectively supplies power to the first and second heating sources **130** and **4140** according to the size of a paper sheet, and since a length of a section in which the second heating source **4140** generates heat is relatively small, power consumption can be decreased.

[0156] A fusing device **5100** according to yet another embodiment of the present disclosure will be described with reference to FIG. **14**. However, to describe the fusing device **5100** according to the embodiment illustrated in FIG. **14**, since the first heating source **130** is the same as that in the embodiment illustrated in FIG. **5**, a description thereof will be omitted, and a second heating source **5140** which is different from that in the embodiment illustrated in FIG. **5** will be described in detail.

[0157] Referring to FIG. **14**, in the second heating source **5140**, a second conductor **5142** may be disposed in a second non-heater portion which is a portion corresponding to a first section **S1**.

[0158] Specifically, a part of the second heating source **5140** corresponding to a fourth section **S4** may be provided with a second heater **5141** and a halogen gas, which are accommodated inside a second body **5143**, to form a second heater portion **5147**. Each of both ends of the second heater **5141** is electrically connected to the second conductor **5142** through a second connection member **5144** disposed in each of the first section **S1** and a third section **S3**. However, as described above, the second heater **5141** and the second conductor **5142** may be directly connected to each other by heat seal.

[0159] A part disposed in the portion corresponding to the first section **S1** of the second conductor **5142** is sealed by the second body **5143**. That is, a part of the second body **5143** corresponding to the first section **S1** may be formed to fully surround the second conductor **5142** disposed in the portion corresponding to the first section **S1** by heat seal. Accordingly, a second non-heater portion **5148** is formed in the second heating source **5140** corresponding to the first section **S1**. Accordingly, even when power is supplied to the second heater **5141** through the second conductor **5142** disposed at each of both ends of the second heating source **5140**, the second non-heater portion **5148** of the second

heating source **5140** does not generate heat. However, the second heater **5141** included in the second non-heater portion **5148** may electrically connect the second heaters **5141** disposed at both ends of the second heating source **5140**, and thus electricity may flow in the second heating source **5140**.

[0160] In the second heating source **5140** according to the embodiment illustrated in FIG. **14**, only the second heater portion **5147** corresponding to the fourth section **S4** generates heat, and the portion corresponding to the first section **S1** and the third section **S3** does not generate heat, even when power is supplied through the second conductor **5142**, similar to the embodiment illustrated in FIG. **13**.

[0161] A fusing device **6100** according to yet another embodiment of the present disclosure will be described with reference to FIG. **15**. However, to describe the fusing device **6100** according to the embodiment illustrated in FIG. **15**, since the first heating source **130** is the same as that in the embodiment illustrated in FIG. **5**, a description thereof will be omitted, and a second heating source **6140** which is different from that in the embodiment illustrated in FIG. **5** will be described in detail.

[0162] Referring to FIG. **15**, in the second heating source **6140**, a second conductor **6142** disposed in a second non-heater portion **6148** which is the portion corresponding to a first section **S1** may be sealed by a second sealing member **6145**.

[0163] Specifically, a part of the second heating source **6140** corresponding to a fourth section **S4** may be provided with a second heater **6141** and a halogen gas, which are accommodated inside a second body **6143**, to form a second heater portion **6147**. Each of both ends of the second heater **6141** is electrically connected to the second conductor **6142** through a second connection member **6144** disposed in each of the first section **S1** and a third section **S3**. However, as described above, the second heater **6141** and the second conductor **6142** may be directly connected to each other by welding.

[0164] A part disposed in the portion corresponding to the first section **S1** of the second conductor **6142** is sealed by the second sealing member **6145**. That is, the second sealing member **6145** is disposed at the portion corresponding to the first section **S1** of the second heating source **6140** and surrounds and seals the second conductor **6142** to form the second non-heater portion **6148**. The second sealing member **6145** may have insulation and/or flame retardancy like the above-described first sealing member **2135** and may be a glass tube or ceramic tube.

[0165] In the second heating source **6140** according to the embodiment illustrated in FIG. **15**, even when power is supplied through the second conductor **6142**, only the portion corresponding to a fourth section **S4** generates heat, and the portion corresponding to the first section **S1** and a third section **S3** does not generate heat, similar to the embodiment illustrated in FIG. **13**.

[0166] As described above, the image forming apparatus **1** according to the present disclosure may heat a part of the first heating sources **130**, **1130**, and **2130** and the second heating sources **140**, **3140**, **4140**, **5140**, and **6140** of the fusing devices **100**, **1100**, **2100**, **3100**, **4100**, **5100**, and **6100** so as to prevent a decrease in printing performance and a decrease in printing speed due to overheating.

[0167] As is apparent from the above description, when small-sized paper is printed, since a part of section of a part of heating source of two or more heating sources of a fusing